



# PROTON



PHYSICS REPORT ON THINGS OF NOTE

VOLUME 6 NUMBER 10

## FACULTY NEWS



### Professor Gene Dunnam Retires

After nearly 50 years of distinguished service, **Professor Gene Dunnam** will retire at the end of this semester. Prof Dunnam was hired as an Assistant Professor in the Department of Physics in September 1958. The department had just moved into a new building which had not been named yet, but would soon be called Williamson Hall after the chairman who hired him, Professor Bob Williamson. Enrollment at the University of Florida was only about 15,000 at the time. The department boasted 15 faculty which included Tom Scott and Stanley Ballard (the latter would become chairman the next year). Besides being hired to teach, he also ran the 'homemade' accelerator. To help raise academic standards in the department, he was part of an effort to require that qualifying exams were written.

Prior to 1960, they were only oral. Being a Gator fan, he recalls that in those days the football team was not very good, so to boost attendance, tickets were sold to faculty for half price.

Looking forward to free time, Prof Dunnam plans to finish building a pipe organ and use the boat he just acquired to do lots of fishing. His musical activities being his favorite, he will continue to sing in two church choirs and is a member of the



The Department of Physics hosted a party in honor of Prof Dunnam's retirement on November 30.



Prof Dunnam with wife, Dibbie  
More photos can be found at  
<http://www.phys.ufl.edu/media/dunnam>

Above photo (l to r):  
Raymond Gay-Crosier  
(former Chair of Romance  
Languages), Robert Bryan  
(former interim UF president),  
Gene Dunnam, Jack Sabin,  
and Charles Sidman (former  
Dean of CLAS)  
Photo right: Prof Dunnam  
with Prof Henri Van Rinsvelt



### Fall 2007 SEMINAR Schedule

**Astrophysics**  
Fridays @ 4:00pm in  
Room 2165 NPB

**Condensed Matter  
Physics**  
Mondays @ 4:05pm in  
Room 2165 NPB

**High Energy Physics**  
Tuesdays @ 2:00pm  
and Fridays @ 2:00pm  
in Room 2165 NPB

**Physics Colloquium**  
Thursdays @ 4:05 in  
Room 1002 NPB

**Quantum Theory**  
Wednesdays @ 4:05pm  
in Room 2205 NPB

**Graduate Students**  
Wednesdays @ 5:15pm  
in Room 2165 NPB

### EDITORS

Alan Dorsey, Chair  
Pam Marlin

## UF Plans Bold Move to Improve Math and Science Education

Source: CLAS News

In the world's most technologically advanced country, math and science teachers are in shockingly short supply. Now the University of Florida is making a bold move to make sure the state has enough qualified science and math teachers to educate the next generation. Equipped with a grant of up to \$2.4 million from the National Math and Science Initiative and an additional \$1 million endowment from the Helios Education Foundation, two UF colleges are launching a new program to recruit science and math students to the teaching profession, molding them into top performers in both the laboratory and the classroom. Known as FloridaTeach, the program will combine the efforts of UF's College of Education and its College of Liberal Arts and Sciences to retool the university's programs for preparing math and science educators. To read the full article please visit:

<http://www.clas.ufl.edu/events/news/articles/20071114-floridateach.html>



college of  
**liberal arts & sciences**

**UF** UNIVERSITY of  
**FLORIDA**  
The Foundation for The Gator Nation



The above picture shows many of the participants to the recent "Pan-American Workshop on Molecular and Materials Sciences: Theoretical and Computational Aspects", held at the Institute of Physics, Universidad Nacional Autonoma de Mexico, in Cuernavaca, this past October 9-11, with the participation of 50 scientists from American countries. The workshop was the seventh in a series, previously organized also at the University of Florida, and was done partly to honor **Professor David Micha's** long term involvement with its organization.

### UPCOMING SEMINARS

FOR TIMES PLEASE SEE PAGE 1

#### CONDENSED MATTER

DEC 3, GEORGE CHRISTOU  
UF, CHEMISTRY

#### QTP

DEC 5, JUAN PERALTA  
CENTRAL MICHIGAN UNIVERSITY

SEMINAR SCHEDULES ARE LISTED AT  
<http://www.phys.ufl.edu/seminars>



*Prof John Klauder has a little fun on Halloween*

## News Bits

**Professor Andrew Rinzler** and his former graduate student **Zhihong Chen** (now on permanent staff at the IBM T.J. Watson Research Center, Tarrytown, NY) have been awarded United States Patent # 7,261,852 titled "Transparent electrodes from single wall carbon nanotubes" (Assignee University of Florida Research Foundation, August 28, 2007). The patent discloses a method for fabricating thin films of single wall carbon nanotubes that are simultaneously transparent and electrically conducting, features that are necessary for opto-electronic device such as solar cells, light detecting and light emitting devices. The method, along with a series of related patent pending developments could result in the broad commercial application of carbon nanotubes.

## STAFF NEWS...



### Farewell & Thank you!

December 14<sup>th</sup> will be my last day on the job, and I'd like to reflect back and say a farewell to you all. I came to the Physics department 10 years ago, thanks in large part to Joan Raudenbush. I had been working at Physical Plant, and was helping coordinate the disconnection and re-installation of the Physics labs from Williamson Hall and other places to the new Physics space. Joan's idea was that it would be wise to have someone within the department that was involved in that process and asked me if I was interested and I accepted. Over the last 10 years, my job has evolved from Electrician to building manager to groundskeeper.

I have many fond memories of my time here and of the people I've had the opportunity to meet and work with, and I thank you all for that. My plans for the near future involve re-discovering the world outside of work. I look forward to spending time with my wife of 32 years, Annmarie (who will be retiring from Shands after 30 years, most of it in the Neonatal Intensive Care Unit), and with our son, Eric. **-Don Brennan**



## STUDENT NEWS



### Students Meet Faculty Event

The Department's annual "Graduate Students Meet the Faculty" poster session event will be held on Thursday, December 6th, from 4:30pm until

about 6:30pm in room NPB2205. Refreshments will be provided as well as encouraging lively discussion between faculty and students. We will also be announcing the recipients of the annual graduate student awards --- so be sure to be there!



### New Graduate Coordinator

**Professor Stephen Hill** will be taking over the duties of Graduate Coordinator of the Department of Physics as of January 1, 2008. Professor Hill can be emailed at [hill@phys.ufl.edu](mailto:hill@phys.ufl.edu) for any

questions regarding Physics graduate studies. He replaces **Professor Mark Meisel** who has been Graduate Coordinator since 2001.

**SPS Coffee Break!** Stop by NPB 2205 Tuesdays and Wednesdays from 3:00 - 3:45pm, where the **Society of Physics Students** provide coffee and cookies for purchase (just a few quarters). Hot tea and hot chocolate are also available. It's a great way to socialize with colleagues, talk with professors, or simply take a break. Faculty, Staff, Undergrads, Grads, Post-docs, and anyone else affiliated with the department are encouraged to come by.



### Physics department student assistants take on new challenges



Giovanna Morini

Physics will be losing two student assistants who will be graduating this semester. **Giovanna Morini** has worked in the Physics main office for two years and will be graduating with a BA in Linguistics and a BS in Psychology. She is currently applying to Grad school in child language development. **Kurt Howard** has worked in High Energy physics for nearly 4 years. He will receive his MBA with a concentration in Finance and will be looking for employment either in Florida or Georgia. Best wishes to you both!



Kurt Howard

### Two senior graduate students receive CLAS Dissertation Fellowships for 2008

**Pradeep Bhupathi** and **Sung-Soo Kim** have received McLaughlin Dissertation Fellowships for the Spring 2008 semester. Administered by CLAS, each award provides \$5,000 and a tuition waiver. Funding for these fellowships comes from the Charles Vincent and Heidi Cole McLaughlin Endowment.

**Pradeep Bhupathi** is a 6th year graduate student working with **Professor Yoonseok Lee**, and his expertise is in experimental low temperature physics. Supported as a research assistant (RA) for most of his tenure in the department, Pradeep is studying the properties of superfluid  $^3\text{He}$  confined by aerogel. He played a key role in building the sophisticated apparatus used for his experiments, and to date, his work has appeared in 4 peer-reviewed publications. He expects to complete his PhD thesis in Spring 2008.

**Sung-Soo Kim** is a 6th year graduate student working with **Professor Pierre Ramond**, and his expertise is in theoretical particle physics. He is studying the fundamental aspects of supersymmetric Yang-Mills theory and supergravity, and to date, his UF work has appeared in 1 peer-reviewed publication. Sung-Soo is an outstanding teaching assistant (TA), and his accomplishments were recognized with Teaching Awards from the Department of Physics and the American Association of Physics Teachers (AAPT). He received the CLAS Outstanding International Student Award in 2006. Sung-Soo is expected to complete his PhD work in Spring 2008.



## Fall 2007 Exams

### QUALIFYING EXAMS for PhD

August 22

**Xingyuan Pan**

"Electronic States and Magneto-Optical Absorption of AlInSb/InSb Heterostructures"

Prof Stanton, Chair

October 8

**Yun-Wen Chen**

"Properties of Amorphous Silica and Its Interaction with Water - A Computational Study"

Prof Cheng, Chair



For a listing of **Physics Alumni** from 1934-2007, please visit <http://www.phys.ufl.edu/alumni>.



### Physics Food Drive

Would you like to help someone this holiday season? The Department of Physics has asked everyone to

bring in donations of non-perishable food items for The Bread of the Mighty Food Bank. The Bread of the Mighty is part of "America's Second Harvest," the largest food recovery and rescue organization in the United States, serving nonprofit organizations in Alachua and surrounding counties. Items can be placed in a box in the mail room of the second floor of the new physics building.

<http://www.breadofthemighty.org>

### FINAL EXAMS for PhD

August 20

**Rukshana Alli Patel**

"First Observation and Measurements of  $\chi_{cJ}$  Decays into Two Charged and Two Neutral Hadrons"

Prof Yelton, Chair

September 25

**Xiaoming Wang**

"Ultrafast Optical Spectroscopic Study of Semiconductors in a High Magnetic Field"

Prof Reitze, Chair

October 4

**Jeffrey Scott Little**

"Quantization of Constraints Using the Projection Operator Formalism"

Prof Klauder, Chair

October 9

**Sergo Robert Jindariani**

"Fragmentation of Jets Produced in Proton-Antiproton Collisions at a Center-of-Mass Energy 1.96 TeV"

Prof Korytov, Chair

November 26

**Jesse I. Angle**

"Gamma Background Studies for the Xenon Experiment Utilizing a High Purity Germanium Detector"

Prof Yelton, Chair

Prof Baudis, Co-Chair

November 27

**Jonathan D. Lawrence**

"Comprehensive High Frequency Electron Paramagnetic Resonance Studies of Single Molecule Magnets"

Prof Hill, Chair

December 5

**Tara P. Dhakal**

"Manipulating the Magnetic Domains of Hole-Doped Manganites by using Electric Field"

Prof Biswas, Chair

December 10

**Naveen Margankunte**

"Infrared Spectroscopy of Phase Separated Manganites and Electron-Doped Cuprates"

Prof. Tanner, Chair